



FR.KGOC.18.14.00 Fire Protection

Table of Contents

1.	Scope and field of application.....	3
1.1	Scope	3
1.2	Field of application	3
2.	References	3
2.1	Company documents.....	3
3.	Responsibilities	3
4.	Definitions	4
5.	Procedure	4
5.1	Action to take in the event of fire	4
5.2	Hand held fire extinguishers.....	5
5.2.1	Classification of fires, extinguisher types and locations	6
5.2.2	Inspection and maintenance of hand held fire extinguishers	6
5.2.3	Installation requirements	7
5.3	Fire cabinets	7
5.3.1	Inspection and maintenance of fire cabinets	7
5.3.2	Use of fire cabinet equipment	8
5.4	Fire alarm system	8
5.5	Fire alarm and detection systems	8
5.6	Firewater systems	8
5.7	Inspection and maintenance plan	9
6.	Management systems	9
6.1	Support resources	9
6.2	Document control	9
6.3	Audit requirements	9
6.4	Procedure renewal process	9
6.5	Deviation process	9
6.6	Training and communications requirements	9



1. Scope and field of application

1.1 Scope

This procedure fulfils the requirements of **Corporate HSE Standards, FR.KPC.032. Fire Safety Management** and **FR.KPC.034.Fire Protection Equipment** to prevent loss of life, injuries, destruction of property and the environment, and loss of production.

1.2 Field of application

Fire prevention and fire protection are the two main components addressed in this procedure, to enable people working within the KGOC HO to lessen the outbreak and spread of fire, and provide for the prompt detection and extinguishing of fire.

2. References

2.1 Company documents

KGOC HO HSE Policy;
PO.KPC.004.HSE Management System Guideline
Corporate HSE Standard, FR.KPC.032.Fire Safety Management
Corporate HSE Standard FR.KPC.034.Fire Protection Equipment
KGOC HO HSE Procedure Appendix-08 HSE Definitions

2.2 Other documents

NFPA 10 Standard for Portable Fire Extinguishers, 2002
NFPA 13 Installation of Sprinkler Systems
NFPA 16 Foam-Water Sprinkler Systems and Foam-Water Spray Systems
NFPA 17 Dry Chemical Extinguishing Systems
NFPA 101 Safety to Life from Fire in Buildings and Structures

3. Responsibilities

This procedure is the responsibility of all KGOC employees, contractors and visitors. It is imperative therefore; that all occupants understand and are familiar with the emergency action they must take. They must be familiar with:

The location of:

- KGOC buildings exits
- Main and alternate muster points
- Evacuation alarms



- Area fire hydrants and hose boxes

The location, operation, or knowledge of:

- KGOC buildings emergency alarm signals
- Fire extinguishers
- Break glass alarm points

See Section 6.6 Training and communication requirements

4. Definitions

APW Extinguisher. Air-Pressurised Water Extinguisher

Emergency Coordinator. Holding a suitable emergency planning competency and managerial position within the KGOC Buildings, the Emergency Coordinator or assistant is responsible for emergency management and control of the emergency. The Emergency Coordinator must have a permanent alternate who assists the Emergency Coordinator in all areas of responsibility and assume the leadership role during absence. It is the responsibility of the Assistant Emergency Coordinator to assign a designated alternate in his absence.

Fire Extinguisher Maintenance. This is a thorough examination of an extinguisher. It is intended to give maximum assurance that an extinguisher will operate effectively and safely. It includes a thorough examination and any necessary repair or replacement. It will normally reveal if hydrostatic testing is required.

Fire Extinguisher Inspection. Inspection is a basic check that an extinguisher is available and will operate. It is intended to give reasonable assurance that the extinguisher is fully charged and operable. Inspections are conducted to ensure that the extinguisher is in its designated place, that it has not been actuated or tampered with, and that there is no obvious physical damage or condition to prevent operation.

KFD. Kuwait Fire Department

HVAC. Heating, ventilation and air conditioning system

5. Procedure

5.1. Action to take in the event of fire

1. Notify other persons in the immediate surrounding



2. If fire is small and you are not in danger, use a hand held fire extinguisher
3. If fire looks serious or is too large to put out with a fire extinguisher, actuate, or ask someone to actuate a break glass alarm or telephone 160 which reaches the KOC Emergency Response Center.
4. All personnel in the building affected by the fire immediately evacuate their work area and proceed in an orderly fashion (walk, don't run) to the nearest emergency exit doors and head towards the allocated Assembly Point.
5. Close, don't lock all doors during departure
6. The KOC Emergency Response Center Operator, upon receiving the call, will notify the KFD and other relevant emergency services to respond.
7. Upon the arrival of KOC Emergency Response Team and based on the available information, the team will take a decision on whether a partial or full evacuation is to be initiated.

See **FR.KGOC.21.Emergency Evacuation Plan** for further information.

8. The KGOC Emergency Coordinator will:
 - Ensure that appropriate emergency services have been notified from the KOC Call center
 - Ensure that evacuation of the building has commenced - if that decision is taken
 - Briefs emergency services upon their arrival.
9. The Kuwait State Fire Brigade will take charge of the fire incident upon their arrival, under the direction of the KGOC Emergency Coordinator.
10. The KGOC Emergency Coordinator will give the 'all clear' for an orderly return to the workplace once the incident is closed.

5.2 Hand held fire extinguishers

Hand held fire extinguishers located within the KGOC buildings are designed to fight fire in its early stages and are best used in the incipient stages to extinguish fire before it reaches a stage where the automatic sprinkler system is actuated.

All KGOC personnel are required to know the location and operation of fire extinguishers in their area.

Whenever an extinguisher is used, regardless of the amount of extinguishing agent used, the Group Manager must immediately call the KGOC Services Team to collect it for recharging and bring a replacement.



5.2.1 Classification of fires, extinguisher types and locations

Class A Fire

Fires in combustible materials, such as wood, paper, rubber and many plastics. Such fires are extinguished by the “quenched-cooling” effect of water or water solutions which cool the burning material below the ignition temperature.

Extinguisher Type

Use an Air Pressurised Water Extinguisher (APW) for this type of fire. APW’s are silver coloured extinguishers that are filled with ordinary tap water, then pressurized with normal air. An APW weighs 25 pounds when filled.

KGOC Locations. Allocated in all KGOC Buildings.

Class B Fire

Fires in flammable liquids, gases and greases. Such fires are extinguished by interrupting the combustion process with such agents as dry chemical.

Class C Fire

Fires involving energized electrical equipment. The electrical non-conductivity of the extinguishing media is of importance.

Extinguisher Type for Class B and C Fires

Use a Dry Chemical Extinguisher for these types of fires. The contents extinguish the fire by coating the fuel with a thin layer of dust, separating the fuel from the oxygen in the air. The powder also works to interrupt the chemical reaction of fire.

KGOC HO Locations. These extinguishers are situated in a variety of locations, such as Fire Cabinets, Offices, Kitchens, Restaurants, Store Rooms, Workshop and Corridors.

5.2.2 Inspection and maintenance of hand held fire extinguishers

The manufacturer’s instructions will advise on the Fire Extinguisher Inspection and Maintenance programme.

All Fire extinguishers within the KGOC HO are being inspected on regular basis by KOC.



5.2.3 Installation requirements

Wall-mounted extinguishers are supported by hangers, brackets or shelves at the following heights as measured from the extinguisher's top to the floor:

- 5 feet or less for units weighing less than 40 pounds.
- 3-1/2 feet or less for units weighing 40 pounds or more.

All other types are housed in Fire Cabinets within the KGOC Buildings.

5.3 Fire cabinets

Fire cabinets located through out the complex house fire equipment that must be kept in good condition and readily accessible to combat fires. Each fire cabinet has a standard inventory approved by KFD which consists of:

- Fire Department outlet valve and hose
- Fire hose reel and shut off nozzle
- 1 x 9 ltr. Air Pressurised Water Extinguisher (APW)
- 1 x 6 kg Dry Chemical Extinguisher

5.3.1 Inspection and maintenance of fire cabinets

KOC Team shall

- Be responsible for the operating condition of the hydrant and maintenance.
- Inspect condition of equipment and make repairs or replacement as needed.

Groups shall:

Maintain easy access to the equipment by:

- Preventing blockage by storage of material
- Maintaining an access path to the equipment
- Ensuring any discharged extinguishers are collected by Services Department for recharging and replacement. (This applies to all extinguishers within the complex).



5.3.2 Use of fire cabinet equipment

with the exception of the Air Pressurised Water and Dry Chemical Extinguishers contained within the fire cabinets, the use of all other equipment is prohibited by KGOC personnel and limited to use by the KFD.

5.4 Fire alarm system

The fire alarm system consists of:

- Smoke Detectors
- Manual Stations
- Sounders
- Duct Smoke Detectors in the Office Areas
- Heat Detectors in the Pantry Areas
- Control and Master Elements interfaced with the HVAC .

5.5 Fire alarm and detection systems

Prompt fire detection is essential for building evacuation and emergency response. Fires may be reported by people dialling 160 KOC Emergency Response Centre , manually actuating Break Glass Alarms or through response from automatic detection devices plus:

- The automatic operation of a Siren.
- The automatic operation of protective equipment e.g. a sprinkler system or gaseous agent fire suppression system is provided as per requirement.
- Backup power is provided for the alarm systems in accordance in the event of a power failure.

A Public Address System supports the alarm system to inform people what to do. There are speakers situated along all corridors of the KGOC HO. These are used for any announcements in the event of an emergency.

5.6 Firewater systems

Firewater systems serving the KGOC facility receive their water supply from Municipal sources through a charged fire main that feeds a hydrant system within the complex. This system is capable of supplying a steady and consistent supply of water, under pressure to hydrants within the complex to meet the needs of any worst case fire scenario.



Firewater pumps within the complex ensure the water supply remains at a constant pressure in the event of external pressure loss or when many hose lines are in use causing excessive demands on the supply.

5.7 Inspection and maintenance plan

Inspection and maintenance of all fire system are carried out by KOC.

6. Management systems

6.1 Support resources

The KGOH HSSE Team will support all teams / groups and provide guidance to achieve the aims of this procedure.

6.2 Document control

Records must be retained in compliance with KGOH HSE Procedure SA 05 HSE Document Management and Control.

6.3 Audit requirements

Audits and inspections will be carried out to ensure compliance with KGOH HSE Procedure GE. 25 HSE Audits, Inspections and Checks.

6.4 Procedure renewal process

This procedure will be reviewed and revised as necessary and, at least every 3 years from the date of the last revision.

6.5 Deviation process

Compliance to this procedure is mandatory and deviation is not allowed.

6.6 Training and communication requirements

An educational programme to familiarise all employees and contractors on the principles and use of fire extinguishers must be undertaken. Refresher training must be conducted annually.



A booklet entitled KGOC Emergency Plan is given to each employee and contractor prior to starting work in the KGOC HO. This booklet contains essential information on what to do in the event of a fire and must be carried at all times when on the premises. It is the responsibility of each occupant to read and understand the booklet.

Visitors will be given a special briefing and a copy of the booklet.

Training and communication requirements are contained in KGOC HSE Procedure SA. 09 Employee Induction and Orientation and KGOC HSE Procedure SA. 10 Employee HSE Training.